WOOD PRODUCT INDUSTRY TRENDS AND MICHIGAN FORESTS

Global Influences

The last decade has seen a significant number of corporate mergers and acquisitions, creating large global forest products companies that are more responsive to market fluctuations. Paper and wood products companies are also downsizing and divesting themselves of "non-core" businesses and assets to increase their competitive advantage and profits. Corporate decisions are made for global market and business positioning, as opposed to regional or local considerations.

Investing in forests and operations overseas provides numerous business advantages over North America and the United States:

- Low risk investment for capital.
- Favorable new construction incentives.
- Proximity to world markets.
- Less government regulation.
- Lower labor costs.
- Lower forest harvesting costs.
- Reduced or no environmental protection costs (e.g. streamside management, Threatened and Endangered species).

Forests in tropical and sub-tropical areas have higher wood fiber productivity than Michigan's temperate forests. In addition, wood technology processes are being developed to better utilize the characteristics of the faster growing tropical species more so than for the slower growing Michigan species.

- Fiber growth rates[1] up to 6 times Michigan's average rate.
- Shorter fiber production rotations (35 years).
- Engineering and manufacturing innovations that are compatible with fast growing fiber characteristics.
- Technological innovations that increase fiber productivity.
- Plantation wood fiber that can be certified under forest certification systems (notably Forest Stewardship Council).

Worldwide, forestry is adopting an agricultural production model for growing timber through tropical and subtropical Intensively Managed Forest Plantations (IMFPs). These forests are geared towards maximizing fiber outputs with minimal consideration

[1] More than 6 times Michigan's average growth rate. Intensively Managed Forest Plantations (IMFPs) achieve 300 cubic feet per acre per year (ft^3/ac/yr) where growth rates of forest stands in Michigan range from 25 (ft^3/ac/yr) in northern hardwoods to 75ft^3/ac/yr in single species red pine plantations. Jack pine and Aspen growth rates are 30ft^3/ac/yr and 48ft^3/ac/yr respectively.

of other social, economic and biological benefits. There has been unprecedented investment in IMFPs in the last 20 years. The fiber from these plantations will form a "wall of wood" by 2020 that is expected to provide nearly one-half the world's industrial wood (today it is 1/3 of the supply).

National Influences

Forests in the United States are valued for a broad range of public values and benefits. These include water and air quality, biological diversity, recreation, aesthetics, spiritual values, habitat, and ecological/natural processes, as well as wood fiber. Most private forest landowners hold forest land for non-timber reasons: recreation, aesthetics, residence.

Unlike the global trend toward wood fiber plantations, most U.S. forests are managed as "natural forests". Natural forests are forests where natural processes, aesthetics, habitat, species diversity, water, soil and stream outputs are desired and part of the management mix.

Forests in the United States have several competitive disadvantages related to global timber production:

- Higher cost of labor.
- Higher cost of owning timber land including taxes.
- Higher cost of environmental compliance.
- Environmental protection regulations have limited access to timber, for example along streams, soil and sedimentation restrictions and wildlife habitat protection.
- Higher transportation costs to new world markets (e.g. China).
- Higher cost of harvesting.
- Lower annual growth rates (relative to world forests).
- Forests are becoming valued more for non-timber services and products such as recreation.
- Forest landowners exclude industrial wood production to favor other values: recreation, second homes, biodiversity.

State Influences

Michigan's 19.3 million acres of forestland is a significant asset to the State, communities, citizens and forest-based industry. Collectively, these forests are a massive base (growing stock) that can provide stable annual harvests of wood fiber.

Michigan and the Great Lakes region have several influences that are favorable for the wood industry:

- Positive growth-to-removals (harvest) ratio.
- Highly educated workforces.

- Favorable location relative to population centers and major North American markets.
- Likelihood of continued growth in wood product consumption in the U.S. and worldwide.

Disadvantages include:

- Reduction in wood fiber from Michigan's national forests.
- Parcelization of (dividing up) large forestland holdings.
- Low level of harvesting from private forests (non-industrial owners) relative to growing stock and annual growth rates.
- Slower annual growth rates compared to other parts of the world.

The most recent forest inventory estimates net annual forest growth in Michigan to be about 930 million cubic feet per year, while removals represent approximately 1/3 that growth. There are a variety of factors that contribute to this statistic. Much of the growth is on private lands and timber harvesting is a low priority for most private landowners. National forests have expanded their protection of recreational and ecological values which are contributing factors to reduced harvests from federal holdings.

In addition, forest growth rates vary by stand age. Rates remain stable or increase until the forest stand reaches maturity when annual growth rates and forest health begin to decline. A young aspen stand will have a higher growth rate, but less volume, than a mature aspen stand that has a slower growth rate and significant wood fiber. A forest comprised of younger-aged stands will have greater growth rates and less wood available for harvest than older stands. Growth-to-removal ratios vary considerably by tree species.[2]

The favorable growth-to-removals ratio has provided opportunities for out-of-state forestry companies that have entered into the Michigan logging market. Mills in Michigan are facing significantly increased competition from out-of-state forest companies and much higher prices than in the recent past. More central and western Upper Peninsula timber is going to Wisconsin and Minnesota mills. A major international firm with several mills in Wisconsin is even considering barging hardwood pulpwood from the northern Lower Peninsula across Lake Michigan to supply their Wisconsin mills.

The potential to increase removals is constrained by the decrease in local logging firms available to remove timber. Barriers include high capital outlay, labor and liability costs, high harvesting costs, business uncertainty and risk, and more profitable paying business alternatives.

[2] Tree species that are harvested using a clearcut method tend to have a lower growth-to-removals ratio than species that are harvested using selection or single tree methods.

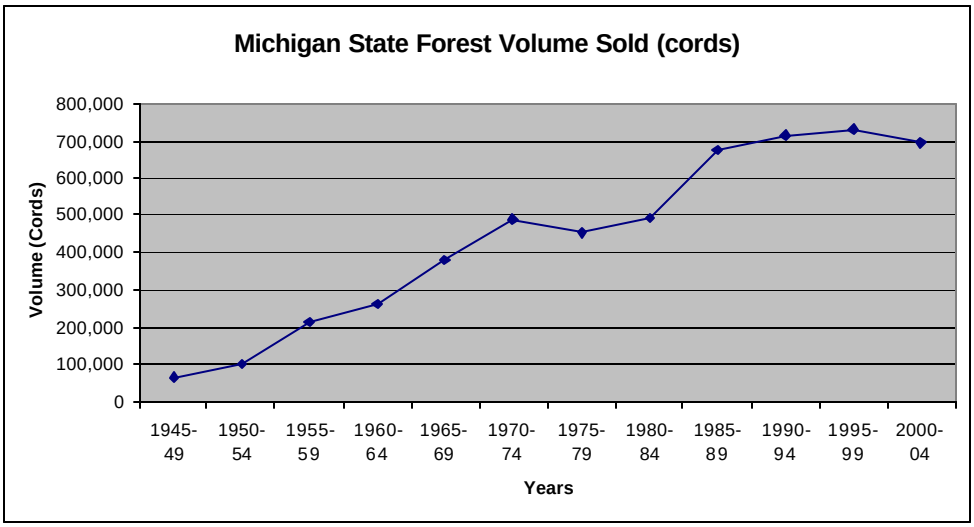
State Forest System Influences

In 2004, the State of Michigan, with strong support from the forest products industry and their customers, reaffirmed and codified the intent of State Forest System management (Part 525, P.A. 451, 1994) to provide a mix of ecological/biological, social and economic values and benefits. In a global context, State Forest System management would be akin to natural forest management, as opposed to that of Intensively Managed Forest Plantations. This policy decision reflects the importance of timber and non-timber forest values and precludes optimization of any single output on the State Forest System as a whole. For example, managing single species red pine plantations on a large scale to optimize fiber production (requiring use of fertilizer, herbicides) is not an acceptable forest management regime under State Forest management guidelines or forest certification principles used in the United States.

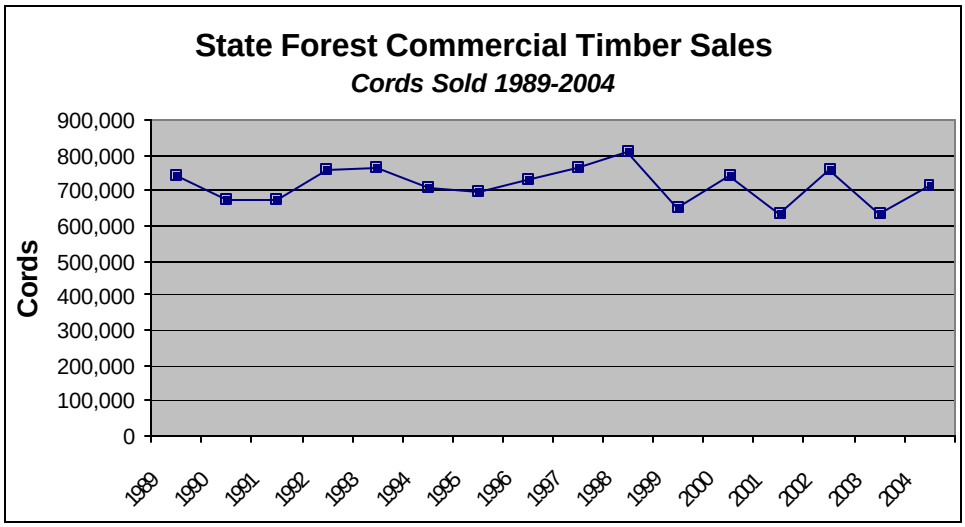
State Forest Management

Historically, Michigan forests were logged too heavily and created a "boom and bust" situation. In the late 1970's the Natural Resource Commission provided clear direction for State Forests to consider "all the values of forest resources."[3] The Statewide Forest Resource Plan of 1983 promoted "stabilized timber supplies from public land".[4] The goal for timber supplied from State Forests is to have a stable level of fiber available over time. Area regulation is employed to provide a continuous yield of timber over time.

The even flow of fiber from State Forests helps stabilize the forest products industry in Michigan. Below are timber sale volumes from State Forests from 1945. Since 1989, timber sale production from the State Forest System has consistently remained in the range of 600,000 cords/year to 800,000 cords/year.



[3] NRC Policy 2207 adopted 1979.
[4] Michigan's Forest Resources: Direction for the Future A Statewide Forest Resource Plan, Michigan Department of Natural Resources, 1983.



In the 1980s, much of the aspen on State Forests reached maturity. Most of these stands were harvested, but some were not, in order to have an even age-class distribution for future timber supply and wildlife habitat. Red pine that was planted by the CCC in the 1930s is maturing today. In order to avoid a boom and bust, the plan is to spread harvests out over at least two decades. This will provide a stable fiber supply and a variety of wildlife habitat conditions.

There are numerous variables that affect the ability to harvest timber from the forest, including resource protection and sustainability, environmental compliance, legal constraints and accessibility. These variables and their influence are expected to increase as non-timber activities increase and private forests are converted to other high value uses. Landowners are becoming less tolerant of timber harvests near their property. This has led to visual and other buffers reducing harvestable State Forest acres and access to State land being denied by adjacent landowners.

At any given time, the Department typically has open timber sales contracts with 1.2-1.6 million cords of timber. That is, the Department has sold timber for harvesting, but that timber has not been cut and removed. The amount of sold standing timber is a reasonable barometer for wood fiber market demand. If supplies are not keeping pace with demand, it should translate into smaller backlogs to cut, in turn, reducing the amount of uncut standing timber on sold timber sales. There had not been a reduction in the amount of uncut standing timber on Department open timber sales until March, 2005 when a dip in standing sold timber was noted.

Recommendations

In the global sphere, Michigan and the Great Lakes region have significant disadvantages in timber production that may outweigh short and long-term advantages. Movement away from plantations -- as we are doing on public forests -- and toward greater biodiversity and environmental protection will move our forests toward slower growth rates and higher costs; while most of the rest of the world is moving toward

plantations, faster growth rates, and lower costs. While this is not necessarily a threat to some firms as they derive lower cost wood inputs from outside the region or make new investments elsewhere, it may be debilitating to the forests and communities in which these firms are currently located.

Recommendations include:

1. Establish a national forest policy framework recognizing the need to balance social, economic and biological values. Reiterate the importance and value of timber harvesting as a forest treatment tool for long-term forest health.

2. Work with USDA Forest Service to revise forest regulations so that they are proactive rather than reactive.

    a. Support annual, ongoing funding for implementation of national forest plans.
    b. Convene a blue ribbon committee to recommend NEPA revisions.
    c. Develop forest planning processes that reflect current and future forest management in a global context. Current regulations have created management paralysis. The National Forest planning framework is outdated and ineffective.

3. Improve the quality, reliability and availability of forest sustainability related data[R2]. Support increased funding ongoing funding of:

    a. Forest Inventory and Analysis (FIA) data.
    b. Timber Products Output (TPO) surveys.
    c. Forest management research.

4. Promote forest certification on non-industrial private forest lands and National Forests [R1]

    a. Increase funding for technical and financial assistance in the areas of planning, utilization and marketing for states and private landowners.

5. Reduce the costs of managing private forests[R3].

    a. Restructure Federal and state tax policy for income, estate, and property tax to support long-term forest tenure and active forest management.
    b. Stabilize the forest regulatory environment. Changing environmental regulations increase risk and serve as a disincentive to long-term management.

6. Provide federal funding to support increased investment and research in new technology – technology that is cutting edge and environmentally and economically competitive.[R2]

7. Maintain a viable domestic forest industry and create new markets for important forest goods and services.[R3]

    a. Provide federal tax credits and incentives for alternative forest values, including watershed protection, carbon sequestration, recreation and oxygen production.

8. Develop regional transportation policy. Current road, rail and water transportation regulations are inconsistent and a disincentive to industry.

9. Explore Bio-Energy options, research, regulations and incentives from research roles on carbon credits to regulatory barriers and other matters affecting cogeneration.[R1]

References:

[R1]Sustaining the Future of the Forest Industry in the Upper Great Lakes Region: 2004. 6 pgs. A Resource Issue Paper of the Great Lakes Alliance, Inc. http://www.lsfa.org/news_notes.html

[R2]Forests and Forestry in the United States – 2050: Points to Ponder. 16 pgs. Gerald Rose. May, 2003.

[R3]Forests Face New Threat: Global Market Changes *An overhaul of forest policy is needed to deal with the economic and environmental consequences of globalized production*. Franklin, Jerry F; Johnson, K Norman. Issues in Science and Technology Online. Summer, 2004 http://www.issues.org/issues/20.4/franklin.html